

KORNIKOV, N.A.

Jarosite from the Kola Peninsula. Mat.po min.Kol'.poluost.

1:121-126 '59.

(MIRA 15:2)

(Kola Peninsula--Jarosite)

ROSTOVTSSEV, N.; DOBRYNIN, P.; TIKHOMIROV, V.; LOGACHEV, A.; SHAKUN, V.;
GRUDSEV, D.; KUDRYAVTSEV, P.; MAL'YEV, M.; SOKOV, N.; ~~KORNIKOV, V.~~;
TOLOKONNIKOV, A.; PUSTOVALOV, A.; RED'KIN, A.; BLOMKVIST, M.;
PETROV, N.; SHUBSKIY, I.; SEMENOV, S.; POPOV, G.; BRODOV, K.;
KORENEV, P.

Professor M.N. Iakovlev; obituary. Zhivotnovodstvo 19 no.12:90
D '57. (MIRA 10:12)
(Iakovlev, Mitrofan Nikolaevich, 1878-1957)

KORNIKOV, Yu.G.

Development of automation and telemechanics in the gas industry.
Avtomatyka no.3:21-31 '57. (MIRA 10:10)

1. Institut vikoristannya gasu Akademii nauk URSR.
(Gas industries) (Automatic control)

KORNIKOV, Yu. G.

Ижевск: Ижевск. Изд., 1958.

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Zemlya i Vozdukh, 1939, p. 190. *Teoriya i primeneniye avtomaticheskikh ustroystv k izucheniye i upravleniye (Theory of Interchange and Its Application to Automatic Devices)*, Proceedings of the Conference Oct. 16-20, 1938, Moscow, 1939, 381 p. No. of copies printed not given.

Reporting Agency: Academy of Sciences USSR. Occidentally telecommunicable name.

Recipients: V. D. Kalabukh, Assistant, Zlatopol'sk Chemical V. A. Bodnar, Doctor of Technical Sciences, D. G. Kuznetsov, Doctor of Technical Sciences, A. B. Kuznetsov, Doctor of Technical Sciences, V. A. Kuznetsov, Doctor of Technical Sciences, P. I. Kuznetsov, Doctor of Physics and Mathematics, A. I. Kuznetsov, Doctor of Technical Sciences, D. S. Petrov, Corresponding Member, Academy of Sciences USSR, V. P. Popov, Doctor of Technical Sciences, D. M. Ulanov, Doctor of Technical Sciences, I. I. Kuznetsov, Assistant, Academy of Sciences USSR, V. A. Kuznetsov, Candidate of Technical Sciences, and V. M. Chernykh, Candidate of Technical Sciences, Tech. Sci. D. V. Artyukov.

CONTENTS: The collection includes reports and documents accumulated at the working in various fields of automation.

on the field of inventiveness and its application to the automatic control of processes, presented at the conference were called by the President, chairman of the Scientific Committee of the Institute of Automatic Control Systems of the Academy of Sciences of the USSR and member of the Presidium of the USSR Academy of Sciences, Academician A. A. Krasovskiy. The papers presented are concerned with biologically controlled systems designed on the basis of compensating for the effects of disturbances at maintaining the invariance of the quality to be regulated with respect to the external action on the system. He reports that the physical and mathematical foundations of invariance in automatic control systems have also considered methods for designing and calculating invariant systems and proposes associated with specific cases of practical applications of compensation in various automatic systems. On the basis of these reports it was established by the conference that, by violation of the conditions of compensation and the principles of invariance, it is possible to produce automatic systems and various arrangements which are more perfect from the viewpoint of quality of the regulation and control process, reliability, simplicity of construction, and reliability of operation. The following members of the USSR Academy of Sciences, Academician K. S. Kolosov, Academician A. I. Khabibov, A. G. Ivanenko, A. A. Krasovskiy, O. K. Lyapunovskiy, N. N. Chumachenko, M. A. Lashovskiy, and P. I. Chelapov, delivered an address each at the

Section 3. Legislation of Multiconnected and Other Systems

14. Sot-Sinobarskiy, A.I. Irradiance in Systems With Several Adjustable Parameters 192
15. Merzovskiy, V.G. Selective Irradiance in Coupled Systems of One Type 222
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20. and others 232

POKROVSKIY, V.M.; DIBINSKIY, V.G.; KORNIILAYEV, A.M.

Effective use of intrafarm pipelines for subsequent pumping of
different petroleum products. Trudy VNII NP no.5:137-147 '56.

(MLRA 9:8)

(Petroleum--Pipelines)

KORNILAYEV, A.N.

AKHROMENKOV, A.A.; ZASLAVSKIY, Yu.S.; VARGIN, A.A.; KORNILAYEV, A.N.; LAPIN,
V.P.

Controlling consecutive pumping of petroleum and petroleum products
through pipelines by use of gamma-densitometer. Neft. khoz. 35 no.12:
60-61 D '57. (MIRA 11:2)

(Petroleum--Transportation)
(Gamma rays--Industrial application)

KONDUKOV, N.B.; KORNILAYEV, A.N.; SKACHKO, I.M.; AKHROMENKOV, A.A.;
KRUGLOV, A.S.

Studying the parameters of the motion of particles in a pseudo-
fluidized bed by the radioisotope method. Inzh.-Fiz. zhur. 6 no.7:
13-18 JI '63. (MIRA 16:9)

1. Institut khimicheskogo mashinostroyeniya, Moskva i Institut
neftyanoy promyshlennosti, Moskva.
(Fluidization) (Radioactive tracers)

EWP(m)/EWP(t)/EWP(b)

Peb

DIAAP

JD

30
23
3

1986-1987

1986-1987

Kondukov, N. B.; Kornilayev, A. N.; Akhromenkov, A. A.; Skachko, I. M.;

Parameters of particle motion in a fluid bed by the radio-
kinematics

tekhno-fizicheskiy zhurnal, no. 2, 1986, 1-12

particle motion, fluid mechanics, chemical labelling, radioisotope

This paper presents an analysis of the results of an experiment de-
scribed in a paper by the authors (Tikhonov, et al., Zhurnal, No. 2,
1986) showing the paths of the particles in the vertical and
horizontal sections in a mono-dispersion fluidized bed. The velocity components
in the bed are obtained. A discussion is given of the errors in
the art. has: 8 graphs.

APR 1961

Institut po pererabotke nefiti, Moscow (Institute of Petroleum
Processing); Institut khimicheskogo mashinostroyeniya, Moscow (Institute of
Chemical Machine Building)

100-100

ENCL: 30

100-100: NP, MS

100

OTHER: 100

100

KORNILAYEV, G. P.

Kornilayev, G. P.

"The Tactics of Surgical Treatment of Inguinal and Pelvic Hernias Based on Clinical Data." Bashkir State Medical Inst imeni 15th Anniversary VLKSM. Ufa, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

KRYLOV, A.P.; KORNILAYEV, V.N.

Determining oil losses in reservoir D₁ of the Tuymazy region
depending on well spacing. Nauch.-tekhn.sbor. po dob.nefti.
no. 14:25-30 '61. (MIRA 17:6)

BRYKINA, M.M.; GATTENDENGER, Yu.P.; KORNILAYEV, V.N.; MIKHAYLOVSKIY, N.K.;
POLIKARPOVA, R.V.; RYBIN, F.S.

Improving methods for the field and geological study of oil reservoir
rocks in order to monitor and control development. Nauch.-tekhn. sbor.
po dob. nefti no.22:76-79 '64. (MIRA 17:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

BURDAKOVA, Ye.A.: VEDERNIKOVA, N.A.; KORNILAYEVA, N.P.

Antidepressive action of transamine; preliminary report. Zhur.
nevr. i psikh. 62 no.12:1813-1814'62 (MIRA 16:11)

1. Kafedra psikhiiatrii (zav. - prof. A.S. Poznanskiy) Bashkir-
skogo meditsinskogo instituta i Bashkirskaya respublikanskaya
psikhonevrologicheskaya bol'nitsa (glavnyy vrach P.O.Akopyan),
Ufa.

*

KOZOCHKINA, Yelena Dmitriyevna; SHEVTSOV, N.S...prof...red.;;
KORNILENKO, V.S., red.; GEORGIYEVA, G.I., tekhn.red.

[Struggle of the Communist Party to build a second coal
reserve in the Soviet Union] Bor'ba Kommunisticheskoi
partii za sozdanie vtoroi ugol'noi bazy Sovetskogo Soюза.
Isd-vo Mosk.univ., 1959. 36 p. (MIRA 12:6)
(Kuznetek Basin--Coal mines and mining)

KLYUYEVA, K.A.; IVANOV, K.Ye., doktor geogr.nauk, red.; KORNILENKO, V.S.,
red.; ZARKH, I.M., tekhn.red.

[Effect of swamps in the drainage basin on annual distribution of
streamflow in rivers of the White Russian S.S.R.] Vliianie sabo-
lozhennosti vodosborov na vnutrigodovoe raspredelenie stoka rek
BSSR. Pod red. K.E.Ivanova. Moskva, Gidrometeor.izd-vo, 1959.
233 p. [___ Graphs] ___ Grafiki. (MIRA 13:6)
(White Russia--Rivers) (Swamps)

BLINOV, L.K., nauchnyy sotrudnik; TSURIKOVA, L.K., nauchnyy sotrudnik;
PAKHOMOVA, A.S., nauchnyy sotrudnik; SOPACH, E.D., nauchnyy
sotrudnik. Primali uchastiye: PONSOV, A.G.; KALASHNIKOVA,
V.V.; KIRILLOVA, Ye.P.; LOS', B.M.; LEBEDEVA, G.V.; KORNILENKO,
V.S., red.; ZEMTSOVA, T.Ye., tekhn.red.

[Manual of marine hydrochemical investigations for hydro-
meteorological observatories and marine hydrometeorological
stations] Rukovodstvo po morskim gidrokhimicheskim issledo-
vaniyam; dlia gidrometeorologicheskikh observatorii i morskikh
gidrometeorologicheskikh stantsii. Pod red. L.K.Blinova. Moskva,
Gidrometeor.izd-vo (otd-nie), 1959. 255 p.

(MIRA 14:6)

1. Moscow. Gosudarstvennyy okeanograficheskiy institut. 2. Labo-
ratoriya khimii morya Gosudarstvennogo okeanograficheskogo
instituta (for Blinov, TSurikova, Pakhomova, Sopach).
(Water—Analysis)

PAKHOMOV, Leonid Afanas'yevich; PINUS, Naum Zinov'yevich; SHMETER,
Solomon Moiseyevich; KORNILENKO, V.S., red.; ZARKH, I.M.,
tekhn.red.

[Aerological research on the variability of the atmospheric
refraction coefficient for ultrashort radio waves] Aerologi-
cheskie issledovaniia izmenchivosti koeffitsienta prelomleniia
atmosfery dlia ul'trakorotkikh radiovoln. Moskva, Gidrometeor.
izd-vo, 1960. 101 p. (MIRA 14:1)
(Microwaves) (Refraction)

KLYUKIN, Nikolay Konstantinovich; SOKOLOV, I.P., red.; KORNILENKO, V.S.,
red.; YERSHOVA, T.S., tekhn.red.

[Climatic survey of the northeastern part of the U.S.S.R.]
Klimaticheskii ocherk Severo-Vostoka SSSR. Pod red. I.P.Sokolova.
Moskva, Gidrometeor.izd-vo, 1960. 116 p. (MIRA 13:11)
(Yakutia--Climate) (Magadan Province--Climate)

DMITRIYEVA, Nataliya Georgiyevna; LEVIN, A.G., otv.red.; PIOTROVICH, V.V.,
otv.red.; KORNILENKO, V.S., red.; ZARKH, I.M., tekhn.red.

[Elements of water economy and runoff forecast in the Amur Basin]
Elementy vlogooborota i prognoz stoka v Priamur'e. Moskva, Gidro-
meteor.izd-vo, 1960. 210 p. (MIRA 14:1)
(Amur Valley--Runoff)

SHULYAKOVSKIY, Lev Gertsovich; SAGATOVSKIY, N.V., otv.red.; KORNILENKO,
V.S., red.; ZARKH, I.M., tekhn.red.

[Beginning of ice formation and freezing of rivers, lakes, and
reservoirs; calculations for prognostic purposes] Polavlenie
l'da i nachalo ledostava na rekakh, ozerakh i vodokhranilishchakh;
raschety dlia tselei prognozov. Moskva, Gidrometeor.izd-vo, 1960.
215 p. (MIRA 13:11)

(Ice on rivers, lakes, etc.)

KORNILIN, N.V.

Raise street construction to a high engineering level. Zhil-kom.
khoz. 11 no.5:10-11 My '61. (MIRA 14:7)

1. Glavnyy inzhener dorozhno-stroitel'nogo tresta, g. Yaroslavl'.
(Yaroslavl--Road construction)

KORNILIN, V.V.

KORNILIN, V.V., inzhener; KLODIN, V.O., inzhener.

Building an all-welded bridge. Avt.dor. 20 no.6:13-15 Ja '57.

(MIRA 10:10)

(Kustanay Province--Bridges, Iron and steel) (Electric welding)

KORNILIN, V.V., inzh.; KLODIN, V.O., inzh.

Replacing small spans without removing rails. Transp.stroi.
8 no.12:30 D '58. (MIRA 12:1)
(Railroad bridges--Maintenance and repair)

KORNILKOV, V. N.: *Card* Master Tech Sci (diss) -- "The excavation of barriers around shafts under the conditions of the Chelyabinsk basin". Sverdlovsk, 1958. 15 pp
(Min Higher Educ USSR, Sverdlovsk Mining Inst im V. V. Vakhrushev), 100 copies
(KL, No 6, 1959, 133)

KORNILKOV, V.N., inzh.

Determination of cost parameters for haulage and hoisting in Chelyabinsk Basin mines. Izv.vys.ucheb.zav.; gor.zhur. no.7:29-33 '58.
(MIRA 12:3)

1. Sverdlovskiy goranyy institut.
(Chelyabinsk Basin--Mine haulage--Costs)
(Mine hoisting--Costs)

KORNILOV, A., inzh.; PAVLOV, V., inzh.

Machine manufacture of reinforced and mesh-reinforced concrete
products. Na stroi. Ros. no.11:28-29 N '61. (MIRA 16:7)
(Precast concrete)

ANTYKOV, A.Ya., dots.; STOMOREV, A.Ya., st. prepod.; KORNILOV, A.,
nauchn. red.; GORA, G., red.

[Soils of Stavropol Territory] Pochvy Stavropol'skogo kraia.
Stavropol, Stavropol'skoe knizhnoe izd-vo, 1964. 51 p. (MIRA 18:8)

1. Kafedra pochvovedeniya i agrokhimii Stavropol'skogo sel'-
skokhozyaystvennogo instituta (for Antykov, Stomorev).

KORNILOV, A.A.; KOSTINA, V.S.

Optimal area of pea leaves for the achievement of large crops.
Fiziol. rast. 12 no.3:551-553 My-Je '65. (MIRA 18:10)

1. Kafedra rasteniyevodstva Stavropol'skogo sel'skokhozyayst-
vennogo inatituta.

AUTHOR: Kornilov, A.A., Mechanic 91-58-6-8/39

TITLE: On the Defects of the "Sampo" 400 h.p. Locomobile (O defektakh lokomobilya "Sampo" 400 l.s.)

PERIODICAL: Energetik, 1958, Nr 6, pp 10 - 11 (USSR)

ABSTRACT: The locomobile boiler was found to be incorrectly mounted on its supports, leading to vibration and the emergence of continuous cracks. The cracks were welded up and the attachment of the boiler to its supports strengthened by tightly-affixed cover plates which were then welded to the boiler. Welded connecting plates were then in turn welded to the support clamps. There is 1 figure.

AVAILABLE: Library of Congress

Card 1/1 1. Boilers-Maintenance 2. Boilers-Vibration

18(5)

SOV/128-59-5-10/35

AUTHOR: Kornilov, A.A. Engineer and Oreshkin, V.D.,
Candidate of Technical Sciences

TITLE: Forced Cooling of large-size Iron Castings in Individual and Small Series Production

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 5, pp 19-21 (USSR)

ABSTRACT: In the machine tool factory imenii Voroshilov at Minsk, a new method for faster cooling of large size castings has been worked out. The special feature of this method is a caisson (Fig. 1) of 7200 x 300 x approx. 1000 mm, the bottom of which is made of fireproof bricks or cement. The castings which have to be cooled are put in in a checkered manner not surpassing the height of 150 mm. These pieces are covered with iron sheets of 3 mm thickness. By means of a ventilator, air is blown through in a longitudinal direction. Various examples are given, e.g. the bench of a large planing machine (24 tons) (see Fig. 2) which is put into the cooling device with a temperature of 320 - 350 °C. The time

Card 1/2

SOV/128-59-5-10/35

Forced Cooling of large-size Iron Castings in Individual and Small Series.

of cooling is shortened from 7 to 2 days. Fig. (3) shows the frame (9.7 tons) of the planing machine, initial temperature is 200 - 280°C., the cooling time shortened from 3 to 1,5 days. Similar examples are shown in Fig. (4) and (5). There are 5 diagrams

Card 2/2

KORNILOV, A. A., KEPKIN, V. D., VARTSUKOV, G. V. and GRESHEIN, V. D.

"Investigation of Forced Cooling of Castings in Sand Moulds"

report presented at the 7th Conference on the Interaction of the Casting Mould and the Casting, sponsored by the Inst. of Mechanical Engineering, Acad. Sci. USSR, 25-28 January 1961.

ORESHKIN, V.D.; REPIN, V.D.; KORNILOV, A.A.

Nomogram for determining the cooling time of large casts under conditions of accelerated cooling. Izv. Sib. otd. AN SSSR, no. 11:137-142 '61. (MIRA 15:1)

1. Khimiko-metallurgicheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(Founding)

ROMANOVA, I.S., kand.med.nauk; URSOVA, L.G., kand.med.nauk; KORNILOV,
A.A., kand.med.nauk

Cases of a combination of hypertension and tumor of the brain
with mental disorders. Trudy 1-go MMI 21:273-284'63.

(MIRA 16:9)

1. Kafedra psikhiatrii (zav. - prof. V.M.Banishchikov) 1-go
Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.
S.chenova.

(HYPERTENSION) (BRAIN-TUMORS) (PSYCHOSES)

LISTVIN, I.A.; CHACHIN, V.P., red.; KORNILOV, A.A., prof., doktor
sel'khoz. nauk, red.

[Recommendations of a scientific industrial conference for
erosion control in Stavropol Territory] Rekomendatsii na-
uchno-proizvodstvennoi konferentsii po bor'be s erozi-
pochv na Stavropol'e. Stavropol'-kraevoi, 1962. 14 p.
(MIRA 17:4)

1. Nauchno-tekhnicheskoye obshchestvo sel'skogo khozyaystva.
Stavropol'skoye krayevoye pravleniye. Agronomicheskaya sektsi-
ya.
2. Predsedatel' krayevogo pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo khozyaystva (for Chachin).
3. Zamestitel' predsedatelya krayevogo pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo khozyaystva (for Listvin).
4. Stavropol'skiy sel'skokhozyaystvennyy institut i predsedatel' agronomicheskoy sektsii pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo khozyaystva (for Kornilov).

KORNILOV, A. A.

27804. KORNILOV, A. A. -- Utochnit' ponyatiye "Sort". Seleksiya i semenovodstvo, 1949, No. 9 S. 26-28

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

KURSHILOV, A. A.

36318

0 sortovom rayonirovani travosmesey. Sov Agronomiya, 1949, No. 11, s. 65-69

S0: Letopis' Zhurnal'nykh Statey, No. 49, 1949

GTRSPPL Vol. 5-No. 1 Jan. 1952

Kornilov, A.A. (Karaganda Agricultural Experimental Station), The size of leaves as an
indication of the conditional development of wheat, 787-90

Akademiya Nauk, S.S.S R., Doklady Vol. 78, No. 4-1951

OTRSPL No. 43

Kornilov, A.A. (Karagandinsk Agricultural Experimental Station). The influence of the leaf size on the formation of the spike in some types of wheat, 1933-6

Akademiya Nauk S.S.S.R., Doklady Vol. 79 No. 6, 1957

KORNILOV, A. A.

Oats

Fast-ripening Dolina oats GK-16 Sel. 1 rem., 19, No. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, June 1952 ~~1950~~. Unclassified.

KORNILOV, A. A.

Wheat

Selection of large-spiked hard wheat of high productivity. Sel. i sem. 19 no. 3, 1952

9. Monthly List of Russian Accessions, Library of Congress, June 1952 1953! Unclassified.

1. KORMILOV, A. A.
2. USSR (600)
4. Botany - Physiology
7. Predominant task in the field of plant physiology. Sel. 1 sem. 19 No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

KERNVLOV, A.A.

KERNVLOV, A.A. and VERTSETSKAYA, V.V.

Propagation of "esparcete" in dry steppe regions and role of club-shaped bacteria.

Mikr biologiya. vol. 21, p.423. 1952.

KORNILOV, A. A.; VERSELETSKAYA, V. V.

Sainfoin

Penetration of sainfoin into arid steppe regions and the role of nodule bacteria.
Mikrobiologiya 21, No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1953² Unclassified.

KORNILOV, A.A.; OPARIN, A.I., akademik.

Completion of the light developmental stage of wheat. Dokl. AN SSSR 92 no.1:
173-176 S '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Oparin).

(Wheat)

KORNILOV, Aleksandr Aleksandrovich

Karaganda Agricultural Experimental Station, Academic degree of Doctor of Agricultural Sciences, base on his defense, 26 March 1954, in the Council of the Omsk Agricultural Institute, of his dissertation entitled: "Directed Culture of the Hybrids of spring wheat and oats in the light stage as a method of selection".

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 9, 16 April 55, Byulleten' MVD SSSR, No. 14, Jul 56, Moscow, pp 4-22, Uncl. JPRS/NY-429

KORNILOV, Aleksandr Aleksandrovich

KORNILOV, Aleksandr Aleksandrovich.

[Millet; biology, breeding, seed growing, cultivation] Proso,
biologiya, selektsiya, semenovodstvo, agrotehnika. Moskva, Gos.
izd-vo selkhoz.lit-ry, 1957. 255 p. (MIRA 10:12)
(Millet)

Country : USSR
 CATEGORY : Cultivated Plants. Grains. M
 ASS. JOUR. : RZBiol., No. 21 1958, No. 95921
 AUTHOR : Kornilov, A.A.
 INST. : AS USSR
 TITLE : Control of Growth and Development Tempos as
 a Means of Boosting the Productivity of Grain
 Crops
 ORIG. PUB. : V sb.: Biol. osnovy obozhayem. zemled. M.,
 AN SSSR, 1957, 449-463
 ABSTRACT : Karaganda Agricultural Experimental Station
 conducted in 1946-1954 field and vegetation
 tests with wheat and millet to study the
 effect of a prolonged photoperiod on the
 productivity of the plants and to find out
 methods of controlling growth and develop-
 ment rates in the plants. As control means,
 one used shade and additional illumination
 (in hothouses), side-dressing the plants with
 different fertilizers during various phases

CARD:

1/2

COUNTRY :
CATEGORY :

M

1958. JOUR. : RZBiol., No.21, 1958, No. 95921

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : of development, the application of irrigation, the use of hybrid plants and selection. An analysis is given of record crops and the results of the variety testing of millet in 1952-1953 and of wheat in 1953-1954. The bibliography lists 20 titles.--V.S. Shmal'ko

CARD: 2/2

15

AUTHOR
TITLE

KORNILOV, A.A.,

20-5-56/60

Resistance to Cold and Hardening of Zea Maize Plants.

(Morozostoykost' i zakalka rasteniy kukuruzy -Russian)

Doklady Akadem.Nauk SSSR, 1957, Vol 114, Nr 5, pp 1116-1119 (U.S.S.R.)

PERIODICAL

ABSTRACT

In publications on plant cultivation it is usually pointed out that maize, as a warmth-loving plant, is injured by frost of -2 and -30C, and withers. In this connection cases were observed in which some types of maize could stand late frost of 4,40C in the leaf-phase 3-5. In Siberia maize in field culture allegedly stood frost of -70C. In the laboratory of the station mentioned below ("A.") the author performed numerous tests with different types of maize and the results make it possible to make proposals for a selection of maize with regard to resistance to cold. The boxes with plants in the leaf -phase 3-6 were frozen through one or more times for 3-4 hours in a special closed room or in an open place accessible to north and east winds. The test results were examined after a 2-3 days' stay of the plants in a warm room. The completely uninjured plants and those with one frozen leaf constituted the group of un-injured plants; those with 2-3 frozen leaves were considered injured; among the withered plants the author counted those who had lost their turgor after thawing or whose parts above the earth withered, independent of the fact whether they later on sprouted or not. At -40 and -50C there existed two sharply separated groups: those withered and those almost completely intact. Border cases rarely occurred. 10 ty-

Card 1/3

Resistance to Cold and Hardening of Zea Maize Plants.

20-5-56/60

Plants of various selection stations were tested. Tab. 1 shows that maize plants in the leaf-phase 4 are less resistant than in leaf-phase 2-3. Further tests were made with hardened plants. Great differences among the types were observed with regard to cold tolerance. But the differences within one individual type between the hardened plants and those exposed to frost immediately from the greenhouse were much greater. Among the latter hardly any were able to stand frost of -4°C , namely from 8 to 34%. These results agree with the wide-spread opinion that maize freezes up at temperatures below -3°C . In a closed room they stood up to the same cold of -4°C much better than in the open and in wind. Analyses of hardened plants confirmed the opinion that the hardening of winter crop is connected with a raised sugar content. The author then tested the plants, which had been hardened at -4°C , at -5°C . Part of them stood this temperature fairly long, especially in calm without a north or northeast wind. This resistance must be distinguished clearly from the cases which occurred in Siritia: at late frost of -5° and -6°C all maize plants withered, the leaflets became black and lay on the earth. Later on the plants again sprouted and normally concluded the vegetation period. If the seed stuck in the earth sufficiently deep, the plants even sprouted again after a cold of -7°C . This ability must not be mistaken for the relative resistance to cold, since it is due to a considerable store of foodstuff in the endosperm.

Card 2/3

KORNILOV, A.A., doktor sel'skokhoz.nauk

Sainfoin *Onobrychis arenaria* in nonrotating fields and in
forage crop rotations of the arid steppe. Zemledelie 7
no.10:67-69 0 '59. (MIRA 13:1)

1. Stavropol'skiy sel'skokhozyaystvennyy institut.
(Sainfoin)

KORNILOV, Aleksandr Aleksandrovich, doktor sel'khoz. nauk, prof.; KOREYSHO,
Ye.G., red.; DEYEVA, V.M., tekhn. red.

[Millet] Proso. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1960. 243 p.
(Millet) (MIRA 14:6)

KORNILOV, A.

More than one hundred apprentices. Stroitel' no.8:18 Ag '60.
(Isaov, Sergei Aleksandrovich) (MIRA 13:8)

KORNILOV, A.A.

Course of hypertonic psychoses in the light of a late catam-
nesis. Trudy 1-go MMI 21:184-191'63. (MIRA 16:9)

1. Kafedra psikhatrii (zav. - prof. V.M.Banshchikov) 1-go
Moskovskogo ordena Lenina meditsinskogo instituta imeni
Sechenova.

(PSYCHOSES) (HYPERTENSION)

KORNILOV, A.A.

Sustaining therapy for patients after recovery from hypertonic psychoses. Trudy 1-go MMI 25:249-252 '63. (MIRA 17:12)

1. Kafedra psikiatrii 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova (sav. kafedroy prof. V.M.Banshchikov).

KORNILOV, A. I., doktor sel'skokhoz. nauk

Ties between scientific institutions and production. Zemledelie 27
no. 11:6-11 N '65. (MIRA 18:10)

1. Stavropol'skiy sel'skokhoz. institut.

VEDERNIKOV, V.A.; KAZANTSEV, Yu.M.; KORNILOV, A.D.; KHILKOV, V.A.

Negative serological reaction in patients with syphilis treated
with bicillin-1. Vest.derm.i ven. 34 no.6:42-43 '60.

(MIRA 13:12)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof.
V.A. Vedernikov) Arkhangel'skogo meditsinskogo instituta.
(SYPHILIS) (PENICILLIN)

KORNILOV, Aleksandr Ivanovich; MININ, V.F.[deceased]; ZINOV'YEV, Anatoliy Yakovlevich; ZAGRYADSKIY, Vasilii Ivanovich; KALININ, O.V., red.; FREGER, D.F., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Mesh-reinforced concrete roofs for industrial buildings; experience of the "Orgtekhstroï" Trust and Trust No.44 of the Administration of Construction of the Leningrad National Economic Council] Armotsementnye pokrytiia dlia promyshlennykh zdaniï; iz opyta raboty tresta "Orgtekhstroï" i tresta No.44 Upravleniia stroitel'stva Lensovmarkhoza. Leningrad, 1962. 16 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: "Stroitel'naia promyshlennost'," no.5) (MIRA 15:8)
(Roofing, Concrete) (Industrial buildings)

KORNILOV, A. I.

"Spectrophotometric Study of Solar Spots." Cand Phys-Math Sci, State
Astronomical Inst imeni Shternberg, Moscow, 1954. (RZhAstr, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations
Defended at USSR Higher Educational Institutions (15)

KORNILOV, A.I.

Possible systematic error in determining the excitation temperature by means of "the curve of increase". Soob. GAISH no.100: 65-71 '57.

(Astrophysics)

(MIRA 12:1)

KORNILOV, A.I.

Remarks on the energy of oscillators for Fe I spectrum lines
measured with an a.c. arc. Soob.GAISH no.107:3-15 '60.

(Spectrum, Solar) (Oscillators, Electric) (MIRA 14:3)

3.1540

78027

SOV/33-37-1-27/31

AUTHOR:

Kornilov, A. I.

TITLE:

Concerning the Influence of Sunspot Magnetic Fields
on the Curve of Growth

PERIODICAL:

Astronomicheskii zhurnal, 1960, Vol 37, Nr 1,
pp. 182-184 (USSR)

ABSTRACT:

Several authors have investigated this problem: Bruggencate and Klüber (1939), J. Warwick (1953 and 1955), Hubenet (1954). The present author obtained his observational material in 1953 at the Kuchino Astrophysical Observatory near Moscow, when a large sunspot was present. He constructs his curves of growth with the lines of VI and FeI, and follows the method of Warwick. For the parameter of magnetic splitting the author chooses the quantity:

$$1/2 \left[\frac{\Delta}{\lambda} \right] \left(\frac{Mg}{\lambda} \right)$$

Card 1/2

which can be expressed as a function of Lande's factors

Concerning the Influence of Sunspot Magnetic
Fields on the Curve of Growth

78027
SOV/33-37-1-27/31

and of the quantum numbers of the upper and lower levels. Two graphs show that there is no dependence of the equivalent width on the parameter of magnetic splitting. The scattering of the points is ascribed to errors of the oscillator strengths, and the rise of the curve of growth is attributed to microturbulence. There are 2 figures; and 12 references, 3 Soviet, 4 German, 2 French, 1 Japanese, 2 U.S. The U.S. references are: J. Warwick, J. Astron., 58, Nr 1216, 48, 1953; Ch. Moore, Atomic Energy States, Circ. Nat. Bur. St., 467, 1949, 1952.

ASSOCIATION: Sternberg State Astronomical Institute (Gos. astronom-
icheskiy in-t imeni P. K. Shternberga)

SUBMITTED: January 27, 1959

Card 2/2

41277

S/035/62/000/010/025/128
A001/A101

3.1520

AUTHORS: Kornilov, A. I., Kozhevnikov, N. I.

TITLE: Polarization of radiation and instrumental contour of a spectrograph

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 46, abstract 10A335 ("Soobshch. Gos. astron. in-ta imeni P. K. Shternberga", 1961, no. 117, 15 - 20)

TEXT: The authors consider theoretically the profile of a diffraction image of the spectral line; in summation of oscillations in the focal plane of the spectrograph, not only phases but also polarization of oscillations of light are taken into account. Incident light is assumed to be plane-polarized, parallel and perpendicular to the spectrograph slit. Diffraction is considered only on the diaphragm of the prism or the grating. The calculation results are presented in graphs showing distribution of amplitude and intensity as a function of diffraction angle for aperture ratios of the spectrograph 0.75 - 0;0; this dependence proves to be insignificant. Since the amplitudes

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Polarization of radiation and...

S/035/62/000/010/025/128
A001/A101

of polarized components coincide for small aperture ratios, the authors conclude that, in experimental determination of a diffraction profile of the slit image, differentiating of light bundles with different polarization is not necessary. A necessity in separation may arise only in cases of spectrograph cameras with aperture ratio ≥ 1 . There are 5 references.

Ye. Makarova

[Abstracter's note: Complete translation]

Card 2/2

S/623/61/000/117/002/002
E032/E414

AUTHOR: Kornilov, A.I.

TITLE: A spectrophotometric study of sunspots

SOURCE: Moscow. Universitet. Gosudarstvennyy astronomicheskiy institut. Soobshcheniya. no.117, 1961, 27-56

TEXT: The sunspot spectra used in this study were obtained with the solar spectrograph of the Kuchinskaya astrofizicheskaya observatoriya (Kuchino Astrophysical Observatory) GAISH, which has a dispersion of 1.66 Å/mm in the second order. Altogether 187 photographs of the spectra were obtained, out of which 2 plates with 5 spectra of a sunspot observed on July 14, 1953 were selected for analysis (4230 to 4580 Å). The sunspot was located at a distance of 0.36 R_☉ from the centre of the disc and its size was 40". Growth curves were plotted for the lines V I, Ti I, Ti II, Fe I and Fe II. Analysis of the growth curves was based on the assumption that the distribution of atoms over the energy states is of the Boltzmann type. It was found that the average excitation temperature for the above sunspot was 3850°K and that the number of Fe I and V I atoms in the layer in which

Card 2/2

SATALKIN, A.V., doktor tekhn.nauk; SENCHENKO, B.A., kand.tekhn.nauk;
KOMOKHOV, P.G.; KORNILOV, A.I., inzh.; PAVLOV, V.N., inzh.

Concrete mixes for mold rolling and vibration mold rolling.
Trudy NIIZHB no.33:271-291 '64.

(MIRA 18:2)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta (for Satalkin, Senchenko, Komokhov). 2. Orgtekhstroy Leningradskogo soveta narodnogo khozyaystva (for Kornilov, Pavlov).

KUPNIKOV, A.I., inzh.; PAVLOV, V.N., inzh.

Multiple-unit procedure in preparing thin-walled reinforced concrete and mesh-reinforced concrete elements for industrial buildings. Trudy NIIZHB no.33:259-270 '64.

1. Trest "Oy tekhnstroy", Leningradskiy sovet narodnogo khozyaystva. (MIRA 18:2)

BOGATYREV, Viktor Vladimirovich; KORNILOV, A.M., red.; MATVEYEV, G.I.,
tekhn.red.

[Flood control for reservoir areas of large hydroelectric
power stations] Inzhenernaia zashchita v zonakh vodokhranilishch
krupnykh gidroelektrostantsii. Moskva, Gos. energ. izd-vo, 1958.
179 p. (MIRA 12:1)

(Hydraulic engineering) (Reservoirs)

DANCHEV, V.I.; KORNILOV, A.M.; MEYMYSHEV, M.V.; OL'KHA, V.V.;
PROSHLYAKOV, B.K.; STEBLYANOV, M.P.; SYTHNIKOV, M.P.

Uranium mineralisation in carbonate sedimentary rocks.
Geol.rud.nestorozh. no.6:27-38 M-D '59. (MIRA 13:7)
(Uranium ores)

ERISTOV, V.S., red.; KORNILOV, A.M., red.; VORONIN, K.P., tekhn.red.

[Design and construction of high dams; materials of the conference on high dams] Proektirovanie i stroitel'stvo vysokikh plotin; po materialam soveshchaniia po vysokim plotinam. Pod obshchei red. V.S.Eristova. Moskva, Gos.energ.izd-vo, 1960. 196 p.

(MIRA 13:6)

1. Nauchno-tekhnicheskoye obshchestvo stroitel'noy industrii SSSR. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR ; Tekhnicheskoye upravleniye Ministerstva stroitel'stva elektrostantsiy SSSR (for Eristov).

(Dams)

DOMANSKIY, Vitaliy Yefimovich; prof.; KORNILOV, A.M., red.; BORUNOV,
H.I., tekhn.red.

[Construction of the Mingeaur complex of hydroelectric
structures; Mingeaur and Varvarovka Hydroelectric Centers]
Stroitel'stvo Mingeaurskogo kompleksa gidrotekhnicheskikh
sooruzhenii; Mingeaurskii i Varvarinskii gidrouzly. Moskva,
Gos.energ.isd-vo, 1960. 207 p. (MIRA 14:1)
(Mingeaur Hydroelectric Power Station)
(Varvarovka Hydroelectric Power Station)

KUPERMAN, V.L., inzh.; OBREZKOV, S.S., inzh.; ERISTOV, V.S., red.;
BOBRITSKIY, M.M., inzh., red.; MOSTKOV, V.M., inzh.,
red.; ROZANOV, K.A., inzh., red.; TAYCHER, S.I., inzh.,
red.; KORNILOV, A.M., red.; LARIONOV, G.Ye., tekhn.red.

[Design and construction of hydraulic tunnels and under-
ground hydroelectric power stations] Proektirovanie i so-
oruzhenie gidrotekhnicheskikh tunelei i podzemnykh GES;
materialy soveshchaniia. Moskva, Gosenergoizdat, 1963.
(MIRA 16:10)
231 p.

1. Chlen-korrespondent Akademii stroitel'stva i arkhi-
tektury SSSR (for Eristov).
(Hydroelectric power stations)

RABOTNOV, B.A., inzh.; KORNILOV, A.M., inzh.

Efficient use of welding equipment. [Trudy] LMZ no.11:114-118 '64.
(MIRA 17:12)

KORNILOV, A.N., kapita meditsinskoy slushby

Motor function of the gastrointestinal tract in radiation sickness.

Voen.-med. zhur. no.3:19-25 Mr '56.

(ALIMENTARY CANAL)

(RADIATION SICKNESS)

(MLRA 9:9)

KORNILOV, A.N., kand.meditsinskikh nauk;

Use of some simple physiological tests for the hygienic evaluation
of air pollution by industrial wastes. Gig. i san. 25 no.4:107-108
Ap '60. (MIRA 13:8)

1. Iz Instituta radiatsionnoy gigiyeny Ministerstva zdravookhraneniya
RSFSR.

(ORSK--AIR--POLLUTION)

KORNILOV, A.N., Cand Chem Sci — (diss) "Determination
of the temperature of boron oxide formation." Mos, 1959.
11 pp (Mos State U im M.V. Lomonosov. Chemical Faculty.
Thermal Laboratory im V.F. Luginin). 150 copies Biblio-
graphy at end of text (KL, 40-59, 102)

28(5)

AUTHORS: Vostroknutov, N. G., Kornilov, A. N., Gal'chenko, G. L.,
Skuratov, S. M. and Timofeyev, B. I. SOV/76-33-8-35/39

TITLE: Arrangement for Measuring the Work of Alternating Current in
Calorimetry

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 8, pp 1883-1886
(USSR)

ABSTRACT: For determining the heats of reaction taking place at higher
rates with high temperatures, a calorimeter bomb with an
electric furnace is usually used. Since, however, the resistance
of the furnace greatly increases within a short time, the
determination of the work of the current becomes very diffi-
cult if the amperage and voltage change in wide ranges. Ref-
erence 1 recommends in such cases to use a precision watt-
meter, but fails to give any data regarding the pattern or
the method of measurement to be used. Now an arrangement for
measuring the work of the electric current in the furnace
of a calorimeter bomb under the above circumstances is des-
cribed. The wiring diagram (Fig 1) consists, in the main,
of an active-current meter (I) and a reactance-current meter
(II). For (I), a single-phase alternating current meter of
the W E1 55 (Siemens) type for 5 a and 120 v is used. In recent

Card 1/2

Arrangement for Measuring the Work of Alternating Current in Calorimetry

SOV/76-33-8-35/39

times, however, this instrument was replaced by a current meter of the V-3 type designed by N. G. Vostroknutov, VNIIEK (Moscow) in order to raise the measurement accuracy. A current meter specially made for the requirements of (II) (Ref 2) was built at the *otdeleniye elektricheskikh izmereniy* VNIIEK (Moskva) (Department of Electrical Measurements of the VNIIEK (Moscow)). The measurement principle, the current meter calibration (Table), and the use of the arrangement in calorimetry are described, and the corresponding calculation equations are given. There are 1 figure, 1 table, and 3 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 27, 1959

Card 2/2

5(2,4)

AUTHORS:

Gal'chenko, G. L., Kornilov, A. N., Timofeyev, B. I.,
Skuratov, S. M.

SOV/20-127-5-23/58

TITLE:

The Standard Enthalpy of Boron Oxide Formation

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5,
pp 1016 - 1018 (USSR)

ABSTRACT:

The enthalpy of B_2O_3 mentioned in the title is a fundamental quantity in the thermochemistry of the boron compounds. Its determination is connected with considerable experimental difficulties. Due to this fact the values mentioned in publications (Refs 1-13) do not agree (-270-368 kcal/mol). No reliable value may be chosen from it since in part of the papers (Refs 1-9) the errors caused by the side processes cannot be detected whereas in the other part of these papers data lack permitting the utilization of the obtained results. In the present paper a report is made on an experimental determination of the mentioned quantity by 3 independent methods which (within the limit of measuring errors) led to one and the same result. 1) Combustion of boron in oxygen, 2) Direct determination -

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The Standard Enthalpy of Boron Oxide Formation

SOV/20-127-5-23/58

tion of the heat of formation of boron nitride and the computation of the $\Delta H^{\circ}_{\text{form}}$ of B_2O_3 by using a reliably determined value of the combustion heat of boron nitride (Ref 18). 3) Direct determination of the heat of formation of BCl_3 and the computation of $\Delta H^{\circ}_{\text{form}}$ of B_2O_3 by using reliably determined heat values for the BCl_3 hydrolysis (Ref 19), and the B_2O_3 dissolution (Ref 20) as well as the H_2O formation and of the HCl solution corresponding to the concentration (Ref 14). The above mentioned agreement of the results obtained according to the methods 1-3 proves that considerable systematical errors have been avoided in each of the determinations. There are 22 references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)
PRESENTED: April 7, 1959, by V. N. Kondrat'yev, Academician
SUBMITTED: April 4, 1959
Card 2/2

5.24004/2308/1
11.2221/2209/181221
S/078/60/005/010/001/021
B004/B067AUTHORS: Gal'chenko, G. L., Kornilov, A. N., Skuratov, S. M.TITLE: Combustion Heat² of Boron¹PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 10,
pp. 2141-2147

TEXT: The authors discuss the strong spread of the values of the standard formation enthalpy of B_2O_3 hitherto published (Refs. 1-9). The combustion of boron in the presence of organic substances leads to uncontrollable side reactions and, hence, to unreliable values. Therefore, the authors determined the formation enthalpy of B_2O_3 by three methods. In this paper, they describe the combustion of boron in oxygen. Boron contained in a quartz bowl was heated to $1000^\circ C$ in a bomb calorimeter (Fig.) at 7 atm oxygen pressure by means of a small electric furnace. The authors explain the calculation of the heat generated by the electric furnace by means of the empirical equation

$$Q_{el} = (a/r) \int_0^t v^2 dt + b \quad (1).$$

Card 1/3

Combustion Heat of Boron

84211
S/078/60/005/010/001/021
B004/B067

The constants a and b were determined; r denotes the resistance of the heating element, V its voltage. The integral $\int V^2 dt$ was calculated for the time intervals $t = 10$ sec and $t = 180 \pm 0.2$ sec (time of switching off) by means of the trapeze method. V was measured every 10 - 15 sec by means of a Disselhorst potentiometer and M-21 (M-21) mirror galvanometer. As is shown in Table 1, the values obtained for Q_e from equation (1) are in good agreement with the experimental data. For determining the enthalpy 0.17 - 0.25 boron were weighed into the bomb. After its combustion, the increase in weight of the weighed-in portion was determined in dry air, and the small portion of evaporated boron oxide was dissolved and titrated by washing the bomb (Table 2). Attempts of extracting B_2O_3 from the reaction mass by means of water and of determining it titrimetrically led to low values (Table 3). Extraction remains incomplete. Due to the short duration of action of the high temperature, amorphous boron and vitreous boron oxide are assumed as final products and calculated under these conditions: $\Delta H_{\text{form } B_2O_3 \text{ glass}} = -298.7 \pm 1.8$ kcal/mole. There are 1 figure, 3 tables, and 16 references: 3 Soviet, 8 US, 1 British, 1 French, and 3 German.

Card 2/3

Combustion Heat of Boron

84211

S/078/60/005/010/001/021
B004/B067

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov).
Termokhimicheskaya laboratoriya im. V. F. Luginina
(Laboratory of Thermochemistry imeni V. F. Luginin)

SUBMITTED: August 21, 1959

Card 3/3

85621

S/078/60/005/012/002/016
B017/B064

11.1300

AUTHORS: Gal'chenko, G. I., Kornilov, A. N., Skuratov, S. M.

TITLE: Determination of the Formation Enthalpy¹ of Boron Nitride²¹

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 12, pp. 2651-2654

TEXT: The formation heat of boron nitride was determined in a calorimetric bomb heated by a small electric furnace. Amorphous high-purity boron (O: 0.23%, H: 0.12%, N: 0.005%, and Ca, Mg, and Cu totaling ~0.01%) was used as initial material. For the experiments, nitrogen was freed from oxygen, and dried. A table lists the results of determining the reaction heat between boron and nitrogen. The formation enthalpy of hexagonal boron nitride from crystalline boron and gaseous nitrogen was calculated, and the following values were determined;

$\Delta H_{\text{formation BN crystalline}}^{\circ} = -60.7 \pm 0.3_4 \text{ kcal/mole.}$

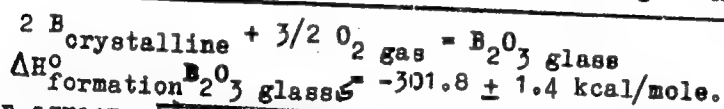
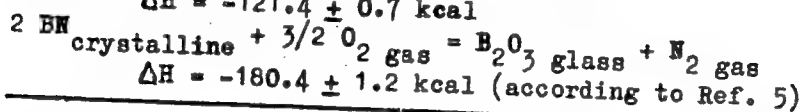
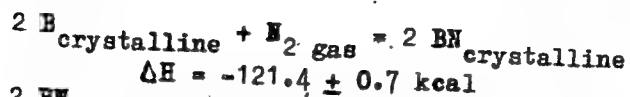
The formation enthalpy of boron oxide was determined by the following thermochemical equations:

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85621

Determination of the Formation Enthalpy
of Boron Nitride

S/078/60/005/012/002/016
B017/B064



This value is in agreement with published values (Refs. 6, 12, and 13).
There are 1 figure, 1 table, and 13 references: 4 Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov). Termo-
khimicheskaya laboratoriya im. V. F. Luginina (Thermo-
chemical Laboratory imeni V. F. Luginin)

SUBMITTED: August 21, 1959

Card 2/2

S/193/60/000/008/010/018
A004/A001

AUTHORS: Kornilov, A. N., Mikhaylov, A. K.

TITLE: The ПЗ500-180 (PE 500-180) Feed Pump Installation

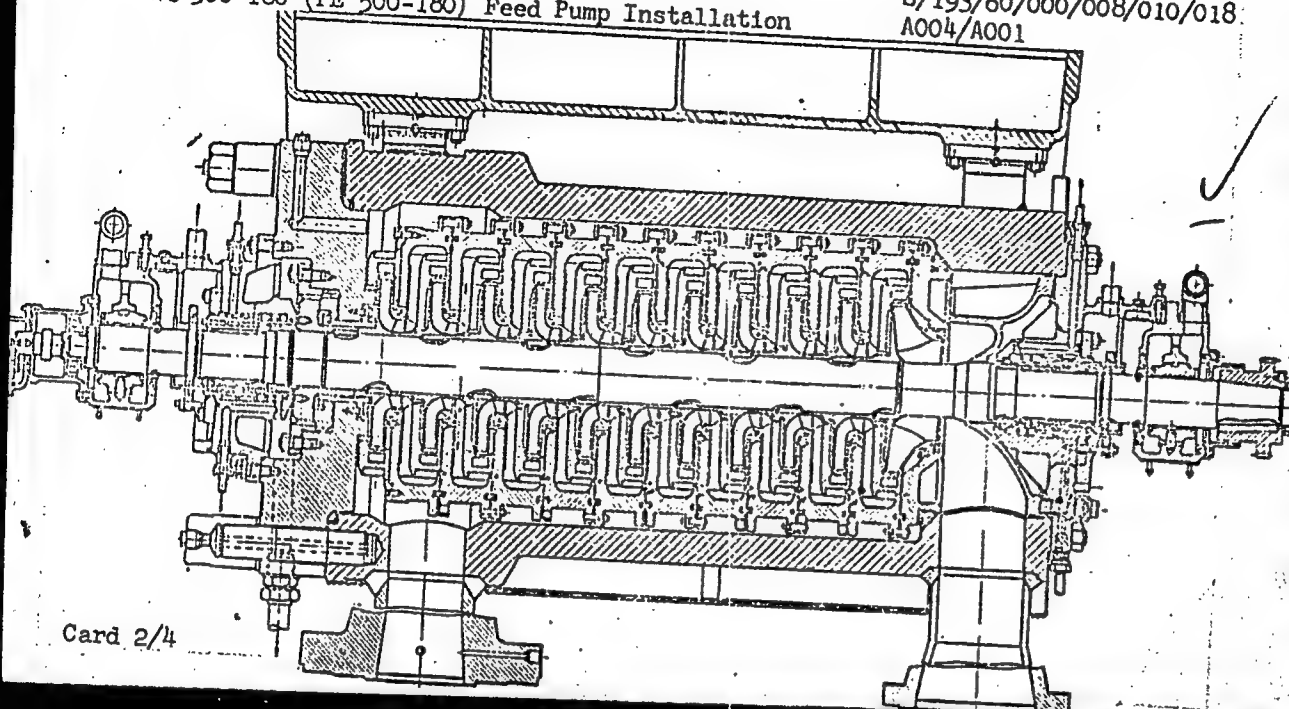
PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No.8, pp. 37-40

TEXT: The Vsesoyuznyy nauchno-issledovatel'skiy institut gidromachinostro-
yeniya (All-Union Scientific Research Institute of Hydraulic Machinery), VIGM,
together with the spetsial'noye konstruktorskoye byuro pitatel'nykh nasosov
(Special Design Office of Feed Pumps), SKB PN, and the Sumskiy nasosnyy zavod
(Sumy Pump Plant) have developed in 1959 the PE 500-180 feed pump installation
intended for the feed of boilers with a pressure of 140 atm, the boilers being
installed in high-power thermal power stations. The installation is composed of
the pump, the ATM-3500-2 electromotor, the МГ-65Х2 (MG-65X2) hydraulic coupling,
a check valve with automatic by-pass, lubrication installation and instrumentation
system (KIP). The illustration shows a longitudinal section of the feed pump
which is a double-housing structure of the section type. The outer housing is a
forged steel cylinder, while the inner housing is an assembled structure with
vertical joints, composed of 11 stages and guiding devices of the blade type.

Card 1/4

The 113500-180 (PE 500-180) Feed Pump Installation

S/193/60/000/008/010/018
A004/A001



Card 2/4

The ~~13~~ 500-180 (PE 500-180) Feed Pump Installation

4/193/60/000/008/010/018

A004/A001

The section seams are built up with austenite steel, the guiding devices and impellers are made of 2X13 (2Kh13) grade steel, while the delivery parts are made of heat-treated stainless steel. The pump ends are sealed with soft packings. The stuffing-box sockets and the internal hollow of the stuffing-box jacket of the end seals are cooled by a cold condensate of less than 40°C. The individual lubrication system of the pump installation consists of the following units: screw-type BH-25 (VNL-25) oil pump mounted on the electromotor of the installation; start-reserve screw-type 3BH-25 (EVN-25) oil pump driven by an a-c electromotor; gear-type P3-3 (RZ-3) oil feed pump with a-c electromotor; two MO-25X4 (MO-25 X 4) oil coolers, oil filter with a filtering area of 1.5 m² and 2.8 m³ capacity oil tank. The pump installation is equipped with automatic control devices, protection, checking and signalling devices. The protection device prevents damage to the installation in the case of an oil-pressure drop, or if the critical magnitude of axial shift of the pump rotor is reached, or in case of a pressure increase in the delivery chamber of the hydraulic base, superheating of the bearings or increased vibration of the pump bearings. The installation is controlled from the main thermal panel of the boiler-turbine block. The following technical specifications of the PE 500-180 feed pump installation are given:

- 1) feed pump: output - 500 m³/hour; pressure in the suction pipe - 6.7 kg/cm²;

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KORNILOV, A.N.

The 2Kh-6E and KhTr-4/100 pumps for chemical industries. Biul.
tekh.-ekon.inform. no.9:22-25 '61. (MIRA 14:9)
(Pumping machinery)

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S/020/62/144/002/020/028
B101/B144

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AUTHORS: Kornilov, A. N., Leonidov, V. Ya., and Skuratov, S. M.

TITLE: Standard heats of formation of niobium pentoxide and tantalum pentoxide

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 2, 1962, 355-358

TEXT: As the data hitherto published for the heats of formation of Nb_2O_5 and Ta_2O_5 diverge greatly, the heat of combustion, $-\Delta U_B$ (24.3°C), of high-purity Nb and Ta in O_2 was determined calorimetrically after the content of impurities in the metal samples had been determined at two laboratories, and their effect was taken into account in calculating $-\Delta U_B$. (I) The content of impurities (% by weight) in niobium preparation 1 was 0.03 O; 0.03 N; 0.004 H; 0.02 C; 0.30 Ta; 0.09 Fe; 0.12 Ti; and 0.06 Si. In niobium preparation 2, it was 0.01₅ O; 0.01 N; 0.005 C; 1.27 Ta; 0.07 Fe; 0.12 Ti; and 0.04 Si. The maximum contents of Al, Mg, Mo, Mn, Ni, P, Pb, and Sn did not exceed 0.01% of each. Combustion took place in high-purity O_2 at 30 atm. The effect of moisture was ignored
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when determining the resulting $\beta\text{-Nb}_2\text{O}_5$. In calculating $-\Delta U_B$ (24.3°C), the effect of impurities was considered on the assumption that: (1) O, N, H, and C react with Nb to form Nb_2O_5 , NbN , NbH , and NbC , respectively, while the remaining impurities do not react with Nb; (2) none of the impurities reacts with Nb. The relevant corrections were within the experimental errors. It was found that $-\Delta U_B$ (24.3°C) = 2432.0 ± 2.0 cal/g of Nb. Hence, $\Delta H_{298}^\circ \beta\text{-Nb}_2\text{O}_5 = -453.5 \pm 0.4$ kcal/mole. (II) Tantalum preparation 1 contained the following impurities (% by weight): $6 \cdot 10^{-3}$ O, $1 \cdot 10^{-2}$ N; $3 \cdot 10^{-4}$ H; $2 \cdot 10^{-2}$ C; 0.12 Nb; 0.11 Ti; $3 \cdot 10^{-2}$ Fe; $< 4 \cdot 10^{-3}$ Si; $4 \cdot 10^{-2}$ W; and $1 \cdot 10^{-2}$ Mo. Tantalum preparation 2 contained $4 \cdot 10^{-3}$ O; $2 \cdot 10^{-3}$ N; $1 \cdot 10^{-3}$ H; $5 \cdot 10^{-3}$ C; 0.80 Nb; $< 5 \cdot 10^{-3}$ Ti; $< 2 \cdot 10^{-3}$ Fe; $< 3 \cdot 10^{-3}$ Si; $< 1 \cdot 10^{-2}$ W; and $< 1 \cdot 10^{-2}$ Mo. In each sample, the content of Al, Ni, and Mg was $< 1 \cdot 10^{-3}$. In sample 1, the content of Pb, Bi, Sn, Sb, and Cd was $< 1 \cdot 10^{-3}$, and in sample 2, it was $< 1 \cdot 10^{-4}$. In sample 2, the content of S and P was $< 2 \cdot 10^{-3}$. Combustion took place in O_2 at 10 atm.

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The resulting $\alpha\text{-Ta}_2\text{O}_5$ and the $-\Delta U_B$ (24.3°C) were determined in the same way as for Nb_2O_5 . The following values were found: $-\Delta U_B$ (24.3°C) = 1347.8 ± 1.0 cal/g Ta; $\Delta H_{298}^\circ \alpha\text{-Ta}_2\text{O}_5$ = -489.3 ± 0.4 kcal/mole. There are 2 tables. The most important English-language reference is: G. L. Humphrey, J. Am. Chem. Soc., 76, 978 (1954).

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

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Card 3/3

KORNILOV, A.N.; LEONIDOV, V.Ya.; SKURATOV, S.M.

Standard heats of formation of niobium and tantalum pentoxides.

Dokl.AN SSSR 144 no.2:355-258 My '62.

(MIRA 15:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

Predstavleno akademikom V.I.Spitsynym.

(Niobium oxides) (Tantalum oxides) (Heat of formation)

BERNATOVICH, K.S., inzh.; ZAYTSEV, Ye.A., inzh.; KORNILOV, A.N.;
MEYERZON, I.M.

The SM-897 unit for making soil-cement blocks. Stroil.i dor.
mash. 7 no.10:28-30 0 '62. (MIRA 15:11)
(Soil cement)

KORNILOV, A. N.; LEONIDOV, V. Ya.; SHERAKOV, S. M.

Standard heats of formation of the higher carbides of niobium and tantalum. Vest. Mosk. un. Ser. 2: Khim. 16 [1.e.17], no.6: 48-50 N-D '62. (MIRA 16:1)

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(Niobium carbide)	(Tantalum carbide)
(Heat of formation)	

KORNILOV, A.N.

On the theory of calorimetric experiment. Part 1. Zhur.fiz.khim. 37
no.10:2296-2298 0 '63. (MIRA 17:2)

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khimicheskaya laboratoriya imeni V.F. Luginina.

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Contribution to the theory of the calorimetric experiment. Part 2.
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KORNILOV, A.N.; ZAYKIN, I.D.; MARTYNOV, Yu.A.; SKURATOV, S.M.

Dosage of the electrical energy supplied to the calorimeter
bomb for ignition of substances. Zhur. fiz. khim. 37 no.11:
2606-2608 N°63. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.